

Name: Answer keyDate: 9/17Period: Algebra

## Lessons 1.1 and 1.2 Quiz

(1) Write an algebraic expression for each phrase.

1) 7 less than 9  $9 - 7$

2) the product of 8 and p  $8p$

3) 4 more than twice c  $2c + 4$

(2) Define variables and write an equation to model each situation.

4) The total cost is the number of sandwiches times \$3.50

 $C$  = total cost  
 $n$  = # of sandwiches

$C = 3.5n$

5) The perimeter of a regular hexagon is 6 times the length of one side.

 $P$  = perimeter  
 $s$  = length of one side

$P = 6s$

(2) Simplify each expression.

7)  $2[(1 + 5)^2 - (18 \div 3)]$

$2[6^2 - 6]$

$2[36 - 6]$

$2[30]$

$\boxed{60}$

8)  $3(6 + 2^2) - 5$

$3(6 + 4) - 5$

$3(10) - 5$

$30 - 5$

$\boxed{25}$

Evaluate each expression.

9)  $xy^2 + z$  for  $x = 3$ ,  $y = 6$ ,  $z = 4$

$3 \cdot 6^2 + 4$

$3 \cdot 36 + 4$

$108 + 4$

$\boxed{112}$

10)  $\frac{3(x^3 - 5x) + 6}{(x^2 + x) \div 4}$  for  $x = 3$

$\frac{3(3^3 - 5 \cdot 3) + 6}{(3^2 + 3) \div 4}$

$\frac{3(27 - 15) + 6}{(9 + 3) \div 4}$

$\frac{3(12) + 6}{12 \div 4} = \frac{42}{3} = \boxed{14}$